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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/736,647	SHIN, AKIHIRO	
	Examiner	Art Unit	
	JASON K. LIN	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-10,12-18 and 22-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-10,12-18 and 22-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 10/736,647 filed on 07/01/2008. **Claims 1-2, 4-10, 12-18, and 22-25** are pending and have been examined.

Response to Arguments

2. Applicant's arguments with respect to **claims 1-2, 4-10, 12-18, and 22-25** have been considered but are moot in view of the new ground(s) of rejection. However, a response to some of applicant's arguments is deemed necessary.

In P.10: lines 13-25, applicant asserts that "rejection of dependent claims 22 and 33... namely, paragraphs 0032, 0037 and 0042 of Kasal merely describe that a streaming network 20 provides both music and video content streams to television sets 115 via the streaming network 120 and the set-top boxes 110. Thus, it is clear that whatever content is displayed on the set-top boxes 110, which allegedly correspond to the claimed personal computer, is the same content that is provide on a premise terminal connected to the set-top box".

In response the examiner respectfully disagrees. Please note the newly cited paragraphs 0031, 0039, 0050 of Kasal, which provide a clearer understanding that media streams, and menus of indexed multimedia content that are currently available to be selected are provided to the user where the user can select and request content to be streamed to their device. Please note that there are multiple devices 110-Fig.1 which the examiner has relied upon to meet the limitations of a premise terminal and a personal computer. Each switch 122-Fig.1 serves more than one device 110-Fig.1 as seen in Fig.1. As stated in

Paragraphs 0031, 0039, 0050 of Kasal, users can select and stream content to their respective devices and that media streams are provided to these devices, so whereupon different users of these devices select different multimedia content, different multimedia content will be provided to both of these devices, and will not have the same content displayed on both as alleged by the applicant.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 1, 2, 17, 22, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), and further in view of Sorenson et al. (US 7,336,680).

Consider **claim 1,** Kasal teaches television broadcast content distributing system (Fig.1) comprising:

a plurality of television broadcast content distributing servers for generating television broadcast contents (server farm 132 – Fig.1; Paragraph 0036-0037);

a plurality of television broadcast content receiving terminals for receiving said television broadcast contents (set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037);

a first channel allocating switch (core switch 124 – Fig.1), connected to said television broadcast content distributing servers, for allocating channels to said television broadcast content distributing servers (Paragraph 0032, 0035), respectively;

a plurality of second channel allocating switches (Edge switches 122 – Fig.1), each connected to one or more of said television broadcast content receiving terminals, said each of said second allocating channel switches allocating one or more of said channels to said one or more of said television broadcast content receiving terminals (Fig.1; Paragraph 0032, 0037, 0042); and

a plurality of virtual local area networks, each arranged in correspondence with one of said channels between outputs of said first channel allocating switch and inputs of said second channel allocating switches (Fig.1; Paragraph 0032).

wherein each of said second channel allocating switches (Edge switches 122 – Fig.1) comprises:

a switch section (Paragraph 0031 teaches edge switches 122 – Fig.1 that switch packets and provide media streams to receiving terminals, therefore it inherently has a switch section to perform these tasks), provided between said virtual local area networks and one or more of said television broadcast content receiving terminals (Fig.1, Paragraph 0031 teaches edge switches 122 – Fig.1, in between core switch 124 – Fig.1 and receiving terminals. Paragraph 0032 teaches virtual LANs

allocated in network 120, which also resides in between core switch and edge switch);

Kasal does not explicitly teach, a control section;

a correspondence storing section, connected to said control section, for storing a correspondence table between physical addresses of said television broadcast content receiving terminals connected to said each of said second channel allocating switches and selected ones of said virtual local area networks;

a switch section, connected to said control section.

a transceiver, directly connected to said television content distributing servers, for directly communicating with at least one of said television broadcast content distributing servers.

In an analogous art Medina teaches, a control section (Col 4: lines 48-51; Col 1: lines 29-31 teaches a switch determining how, when and through which port packets are retransmitted, therefore it is inherent it has a control section in order to perform these tasks);

a correspondence storing section (Global Address Table 12 – Fig.2, 4), connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks (Col 1: lines 61-64 teaches each switch contains a global

address table 12 – Fig.2, 4, that lists each MAC address and its associated VLAN that it belongs to); and

a switch section, connected to said control section (Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table, therefore the control section is connected to the switch section).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Kasal's system to include a control section; a correspondence storing section, connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks; and a switch section, connected to said control section, as taught by Medina, for the advantage of quickly and easily identifying the destination of content and forwarding content to the intended recipient with minimal delay.

Kasal and Medina do not explicitly teach a transceiver, directly connected to said television content distributing servers, for directly communicating with at least one of said television broadcast content distributing servers.

In an analogous art Sorenson teaches, a transceiver, directly connected to said television content distributing servers, for directly

communicating with at least one of said television broadcast content distributing servers (Fig.1; Col 7: lines 40-46 teaches a central location that supports a plurality of remote locations at subscriber or customer premises. Col 8: lines 35-38 teaches remote transceivers 165-168 – Fig.1 that support bi-directional applications. Col 9: lines 1-12, 62-64, Col 15: lines 46-55 teaches the transceivers can be implemented in networking devices and various technology such as logical channels on a shared physical interface, VLAN, etc. can be implemented as well. Col 16: lines 23-36 teaches that a cable network may carry video and that equipment is located at the service provider in order to provide these services. Col 19: lines 5-22, Fig.5a-b teaches the remote transceiver directly connected to the headend).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal and Medina to include a transceiver, directly connected to said television content distributing servers, for directly communicating with at least one of said television broadcast content distributing servers, as taught by Sorenson, for the advantage of providing quick two way communication between devices via a single network element, allowing for greater control and troubleshooting.

Consider **claim 2,** Kasal teaches a television broadcast content distributing system (Fig.1) comprising:

a plurality of television broadcast content distributing servers for generating television broadcast contents (server farm 132 – Fig.1; Paragraph 0036-0037);

a default server for generating a menu of said television broadcast contents (database server within the server farm 132 – Fig.1; Paragraph 0039, 0070);

a plurality of television broadcast content receiving terminals for receiving said television broadcast contents and said menu of said television broadcast contents (set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037);

a first channel allocating switch (core switch 124 – Fig.1), connected to said television broadcast content distributing servers and said default server, for allocating channels to said television broadcast content distributing servers and said default server (Paragraph 0032, 0035), respectively;

a plurality of second channel allocating switches (Edge switches 122 – Fig.1), each connected to one or more of said television broadcast content receiving terminals, said each of said second allocating channel switches allocating one or more of said channels to said one or more of said television broadcast content receiving terminals (Fig.1; Paragraph 0032, 0037, 0042); and

a plurality of virtual local area networks , each arranged in correspondence with one of said channels between outputs of said first

channel allocating switch and inputs of said second channel allocating switches (Fig.1; Paragraph 0032).

wherein each of said second channel allocating switches (Edge switches 122 – Fig.1) comprises:

a switch section (Paragraph 0031 teaches edge switches 122 – Fig.1 that switch packets and provide media streams to receiving terminals, therefore it inherently has a switch section to perform these tasks), provided between said virtual local area networks and one or more of said television broadcast content receiving terminals (Fig.1, Paragraph 0031 teaches edge switches 122 – Fig.1, in between core switch 124 – Fig.1 and receiving terminals. Paragraph 0032 teaches virtual LANs allocated in network 120, which also resides in between core switch and edge switch);

Kasal does not explicitly teach, a control section;

a correspondence storing section, connected to said control section, for storing a correspondence table between physical addresses of said television broadcast content receiving terminals connected to said each of said second channel allocating switches and selected ones of said virtual local area networks;

a switch section, connected to said control section.

a transceiver, directly connected to said default server, for directly communicating with at least one of said default server.

In an analogous art Medina teaches, a control section (Col 4: lines 48-51; Col 1: lines 29-31 teaches a switch determining how, when and through which port packets are retransmitted, therefore it is inherent it has a control section in order to perform these tasks);

a correspondence storing section (Global Address Table 12 – Fig.2, 4), connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks (Col 1: lines 61-64 teaches each switch contains a global address table 12 – Fig.2, 4, that lists each MAC address and its associated VLAN that it belongs to); and

a switch section, connected to said control section (Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table, therefore the control section is connected to the switch section).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Kasal's system to include a control section; a correspondence storing section, connected to said control section, for storing a correspondence table between physical addresses of content receiving terminals connected to said each of channel allocating switches and selected ones of virtual local area networks; and a switch section,

connected to said control section, as taught by Medina, for the advantage of quickly and easily identifying the destination of content and forwarding content to the intended recipient with minimal delay.

Kasal and Medina do not explicitly teach a transceiver, directly connected to said default server, for directly communicating with at least one of said default server.

In an analogous art Sorenson teaches, a transceiver, directly connected to said default server, for directly communicating with at least one of said default server (Fig.1; Col 7: lines 40-46 teaches a central location that supports a plurality of remote locations at subscriber or customer premises. Col 8: lines 35-38 teaches remote transceivers 165-168 – Fig.1 that support bi-directional applications. Col 9: lines 1-12, 62-64, Col 15: lines 46-55 teaches the transceivers can be implemented in networking devices and various technology such as logical channels on a shared physical interface, VLAN, etc. can be implemented as well. Col 16: lines 23-36 teaches that a cable network may carry video and that equipment is located at the service provider in order to provide these services. Col 19: lines 5-22, Fig.5a-b teaches the remote transceiver directly connected to the headend).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal and Medina to include a a transceiver, directly connected to said default server, for directly

communicating with at least one of said default server, as taught by Sorenson, for the advantage of providing quick two way communication between devices via a single network element, allowing for greater control and troubleshooting.

Consider **claim 17,** Kasal, Medina, and Sorenson teach an Internet protocol router connected to said first channel allocating switch (Kasal - router 134 – Fig.1; Paragraph 0034); and

an additional virtual local area network arranged in correspondence with a channel for said Internet protocol router between an output of said first channel allocating switch and the outputs of said second channel allocating switches (Kasal - Paragraph 0032, 0034).

Consider **claims 22 and 23,** Kasal, Medina, and Sorenson teach wherein at least one of the plurality of television broadcast content receiving terminals includes a premise terminal (Kasal - 110-Fig.1) and a personal computer (Kasal - 110-Fig.1; Paragraph 0065, 0067), and wherein a user of the premise terminal is capable of viewing one of the television broadcast contents provided on one of said channels by way of one of the virtual local area networks and a user of the personal computer can view another of the television broadcast contents provided on another of said channels by way of another of the virtual local area networks (Kasal - Paragraph 0032, 0037, 0042; Paragraph 0031, 0039, 0050), both

the one and the another of the virtual local area networks being switched to the one of the plurality of television broadcast content receiving terminals by a corresponding one of the second channel allocating switches (Kasal - Edge switches 122 – Fig.1; Paragraph 0032, 0037, 0042; Paragraph 0031, 0039, 0050).

Consider **claims 24 and 25,** Kasal, Medina, and Sorenson teach wherein said transceiver directly connects said control section to said one of said television broadcast content distributing servers (Medina - Col 4: lines 48-51; Col 1: lines 29-31 teaches a switch determining how, when and through which port packets are retransmitted, therefore it is inherent it has a control section in order to perform these tasks; Sorenson - Fig.1; Col 7: lines 40-46 teaches a central location that supports a plurality of remote locations at subscriber or customer premises. Col 8: lines 35-38 teaches remote transceivers 165-168 – Fig.1 that support bi-directional applications. Col 9: lines 1-12, 62-64, Col 15: lines 46-55 teaches the transceivers can be implemented in networking devices and various technology such as logical channels on a shared physical interface, VLAN, etc. can be implemented as well. Col 16: lines 23-36 teaches that a cable network may carry video and that equipment is located at the service provider in order to provide these services. Col 19: lines 5-22, Fig.5a-b teaches the remote transceiver directly connected to the headend).

5. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Sorenson et al. (US 7,336,680), in view of Suzuki et al. (US 5,892,912), and further in view of Ekstrom (WO 98/44684).

Consider **claim 4**, Kasal, Medina, and Sorenson teach, wherein said correspondence storing section comprises a memory (Medina - Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocating one of said virtual local area networks by referring to said correspondence storing section using a physical address of said one of said television broadcast content receiving terminals (Kasal – Paragraph 0032; set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037; Medina - Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table containing the physical address of the content receiving device),

Kasal, Medina, and Sorenson do not explicitly teach the memory is non-volatile memory;

said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In an analogous art Suzuki teaches, the memory is non-volatile memory (Col 6: line 67 – Col 7: lines 9 teaches MAC addresses of all nodes associated with VLANs are stored in nonvolatile memory);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include non-volatile memory, as taught by Suzuki, for the advantage of storing data permanently so data will not be lost when power is or cannot be supplied.

Kasal, Medina, Sorenson, and Suziki do not explicitly teach said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Sorenson, and Suzuki to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an active device, in order for it to immediately register the user device into the network for use.

6. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Sorenson et al. (US 7,336,680), in view of Suzuki et al. (US 5,892,912), in view of Ekstrom (WO 98/44684), and further in view of Johansson et al. (US 6,873,624).

Consider **claim 12**, Kasal, Medina, and Sorenson teach, wherein said correspondence storing section comprises a memory (Medina - Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocating one of said virtual local area networks by referring to said correspondence storing section using a physical address of said one of said television broadcast content receiving terminals (Kasal – Paragraph 0032; set top boxes 110 – Fig.1, television set 115 – Fig.1; Paragraph 0037; Medina - Col 2: lines 33-35, 41-45 teaches searching for the destination MAC address with the VLAN id in global address table 12 – Fig.2, 4, and forwarding it to the correct port if found in the address table containing the physical address of the content receiving device),

wherein, when a channel is selected by a user by operation of an input device on one of the television broadcast content receiving terminal (Kasal – Paragraph 0032, 0039, 0050, 0070, 0073), said control section of one of said second channel allocating switches that is communicatively connected to said one of said television broadcast content receiving

terminals is informed thereof and transmits a request signal to said default server by way of said respective transceiver and a default virtual local area network that corresponds to one of said virtual local area networks (Kasal – Fig.1; Paragraph 0032, 0042; Medina - Col 4: lines 48-51; Col 1: lines 29-31 teaches a switch determining how, when and through which port packets are retransmitted. Col 2: lines 33-35, 41-45; Sorenson - Fig.1; Col 7: lines 40-46 teaches a central location that supports a plurality of remote locations at subscriber or customer premises. Col 8: lines 35-38 teaches remote transceivers 165-168 – Fig.1 that support bi-directional applications. Col 9: lines 1-12, 62-64, Col 15: lines 46-55 teaches the transceivers can be implemented in networking devices and various technology such as logical channels on a shared physical interface, VLAN, etc. can be implemented as well. Col 16: lines 23-36 teaches that a cable network may carry video and that equipment is located at the service provider in order to provide these services. Col 19: lines 5-22, Fig.5a-b teaches the remote transceiver directly connected to the headend).

Kasal, Medina, and Sorenson do not explicitly teach the memory is non-volatile memory;

said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In an analogous art Suzuki teaches, the memory is non-volatile memory (Col 6: line 67 – Col 7: lines 9 teaches MAC addresses of all nodes associated with VLANs are stored in nonvolatile memory);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include non-volatile memory, as taught by Suzuki, for the advantage of storing data permanently so data will not be lost when power is or cannot be supplied.

Kasal, Medina, Sorenson, and Suziki do not explicitly teach said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Sorenson, and Suzuki to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an active device, in order for it to immediately register the user device into the network for use.

Kasal, Medina, Sorenson, Suzuki, Ekstrom, do not explicitly teach wherein the request signal is transmitting a switching request signal.

In analogous art, Johansson teaches transmitting a switching request signal (Col 4: lines 6-10, 58-60 teaches a plurality of services such as external cable television network B11 – Fig.2, and internal television network F11 – Fig.2. Col 7: lines 11-32 teaches sending a switching request and reconfiguration of VLAN allocation to a user based on the type of service specified to be used by the user. Although the example is between telephony and cable television network B11 services, the example is non-restrictive and can also include the case where the two services are both internal and external cable television network services).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Sorenson, Suzuki, Ekstrom to include a transmitting a switching request signal, as taught by Johansson, for the advantage of notifying the service of the user's choice selections, allowing the system to automatically readjust/reallocate desired services to the user device.

7. **Claims 5, 6, 13, and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Sorenson et al. (US 7,336,680), and further in view of Ekstrom (WO 98/44684).

Consider **claim 5**, Kasal, Medina, and Sorenson teach, wherein said correspondence storing section comprises a volatile memory (Medina

- Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM {volatile memory}),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocating one of said virtual local area networks by referring to said menu of said television broadcast contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), but do not explicitly teach said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

Kasal, Medina, and Sorenson do not explicitly teach a control section receiving a power-on signal from one of content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an active device, in order for it to immediately register the user device into the network for use.

Consider **claim 13,** Kasal, Medina, Sorenson teach, wherein said correspondence storing section comprises a volatile memory (Medina - Col 4: lines 57-60, Col 5: lines 44-46 teaches address table 12 – Fig.1, 4 is implemented as a hash table that is typically implemented in DRAM {volatile memory}),

television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and reading one of said virtual local area networks by referring to said menu of said television broadcast contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), determining whether said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0038; Paragraph 0032) or free, carrying out an authentication when said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0050 teaches content that may be requested, accessed, and paid for by the viewer. Paragraph 0057 teaches virtual LANs that allow only authorized devices to receive media streams. *Therefore, authentication is performed in order for the selected content to be transmitted and received by the viewer*), and allocating said read one of said virtual local area networks when said read one of said virtual local area networks is free or when said authentication is permitted (Kasal - Paragraph 0032 and 0057 teaches virtual LANs that allow only authorized devices to receive media streams), but do not explicitly teach said control section receiving a power-on signal from one of said television broadcast content receiving terminals.

In analogous art, Ekstrom teaches a control section receiving a power-on signal from one of content receiving terminals (Abstract; P.8: lines 26-31, P.9: lines 1-13).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include a control section receiving a power-on signal from one of content receiving terminals, as taught by Ekstrom, for the advantage of automatically notifying the switch of an active device, in order for it to immediately register the user device into the network for use.

Consider **claims 6 and 14**, Kasal, Medina, Sorenson, and Ekstrom teach, wherein said control section registers said allocated one of said virtual local area networks in said correspondence storing section by referring to the physical address of said one of said television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1, and Paragraph 0031 teaches television broadcast receiving terminals. Medina - Col 4: lines 48-51; Col 1: lines 39-44 teaches communication between nodes in the same VLAN. Col 1: lines 61-64 teaches VLANs registered to a particular MAC address of a user device).

8. **Claims 7, 8, 15, 16, and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US

6,975,581), in view of Sorenson et al. (US 7,336,680), and further in view of Johansson et al. (US 6,873,624).

Consider **claim 7**, Kasal, Medina, and Sorenson teach, television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and allocates one of said virtual local area networks by referring to said menu of said television broadcast contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), but do not explicitly teach wherein said control section receives a channel switching request signal from one of said television broadcast content receiving terminals.

In analogous art, Johansson teaches a control section receives a channel switching request signal from one of content receiving terminals (Col 4: lines 6-10, 58-60 teaches a plurality of services such as external cable television network B11 – Fig.2, and internal television network F11 – Fig.2. Col 7: lines 20-32 teaches reconfiguration of VLAN allocation to a user based on the type of service specified to be used by the user. Although the example is between telephony and cable television network B11 services, the example is non-restrictive and can also include the case where the two services are both internal and external cable television network services).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include a control section receives a channel switching request signal from one of content receiving terminals, as taught by Johansson, for the advantage of

notifying the switch of the user's choice selections, allowing it to automatically readjust/reallocate desired services to the user device.

Consider **claim 15,** Kasal, Medina, and Sorenson teach television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1) and reads one of said virtual local area networks by referring to said menu of said television broadcast contents generated from said default server (Kasal – Paragraph 0032, 0039, 0070), determines whether said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0038; Paragraph 0032) or free, carries out an authentication when said read one of said virtual local area networks is chargeable (Kasal - Paragraph 0050 teaches content that may be requested, accessed, and paid for by the viewer. Paragraph 0057 teaches virtual LANs that allow only authorized devices to receive media streams. *Therefore, authentication is performed in order for the selected content to be transmitted and received by the viewer*), and allocates said read one of said virtual local area networks when said read one of said virtual local area networks is free or when said authentication is permitted (Kasal - Paragraph 0032 and 0057 teaches virtual LANs that allow only authorized devices to receive media streams), but do not explicitly teach wherein said control section receives a channel switching request signal from one of said television broadcast content receiving terminals.

In analogous art, Johansson teaches a control section receives a channel switching request signal from one of content receiving terminals (Col 4: lines 6-10, 58-60 teaches a plurality of services such as external cable television network B11 – Fig.2, and internal television network F11 – Fig.2. Col 7: lines 20-32 teaches reconfiguration of VLAN allocation to a user based on the type of service specified to be used by the user. Although the example is between telephony and cable television network B11 services, the example is non-restrictive and can also include the case where the two services are both internal and external cable television network services).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include a control section receives a channel switching request signal from one of content receiving terminals, as taught by Johansson, for the advantage of notifying the switch of the user's choice selections, allowing it to automatically readjust/reallocate desired services to the user device.

Consider **claims 8 and 16**, Kasal, Medina, Sorenson, and Johansson teach, wherein said control section registers said allocated one of said virtual local area networks in said correspondence storing section by referring to the physical address of said one of said television broadcast content receiving terminals (Kasal - 110, 115 – Fig.1, and

Paragraph 0031 teaches television broadcast receiving terminals. Medina - Col 4: lines 48-51; Col 1: lines 39-44 teaches communication between nodes in the same VLAN. Col 1: lines 61-64 teaches VLANs registered to a particular MAC address of a user device).

Consider **claim 18,** Kasal, Medina, and Sorenson do not explicitly teach wherein a fixed Internet protocol address is given to said system.

In an analogous art Johansson teaches, a fixed Internet protocol address is given to said system (Col 7: lines 37-42 and Col 8: lines 43-49 teaches fixed IP addresses given to VLANs of the system).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include a fixed Internet protocol address is given to said system, as taught by Johansson, for the advantage of providing respective services fixated to a known internet protocol address, allowing for better structuring and switching of services.

9. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Sorenson et al. (US 7,336,680), in view of Oosterhout et al. (US 6,405,371), and further in view of Opelt (US 4,868,681).

Consider **claim 9,** Kasal, Medina, and Sorenson teach a default server (Kasal - database server within the server farm 132 – Fig.1; Paragraph 0039, 0070), receives said television broadcast contents from said television broadcast content distributing servers to generate said menu of said television broadcast contents (Kasal - Paragraph 0039 teaches receiving and storing indexed multimedia content to generate custom screens/menus containing available selections), but do not teach cyclically receiving said television broadcast contents and generating said menu by reducing images thereof.

In an analogous art, Oosterhout teaches receiving television broadcast contents on a compressed-data basis, and demodulating/demultiplexing received television broadcast contents to generate said menu of said television broadcast contents by reducing images thereof (Fig.2; Col 2: lines 46-67 teaches receiving digitally encoded {compressed-data basis} television broadcast contents and a receiver demodulating/demultiplexing the received signal which generates a mosaic of images like those shown in Fig.2. Col 4: lines 52-61 teaches real-time sub-images {reduced images}).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include creceiving television broadcast contents on a compressed-data basis, and demodulating/demultiplexing received television broadcast contents to generate said menu of said television broadcast contents by reducing

images thereof, as taught by Oosterhout, for the advantage of efficiently utilizing broadcasting bandwidth while presenting to the user a more friendly visual representation of selectable viewing content, allowing them to quickly scan the content for ones they desire to view, without consuming a considerable amount of system resources.

Kasal, Medina, Sorenson, and Oosterhout do not explicitly teach cyclically receiving content, and time-expands the cyclically received contents.

In an analogous art Opelt teaches, cyclically receiving content, and time-expands the cyclically received contents (Col 1: lines 15-25 teaches cyclically receiving and time expanding the received contents).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Sorenson, and Oosterhout to include cyclically receiving content, and time-expands the cyclically received contents, as taught by Opelt, for the advantage of ensuring that contents are received and supplied in a timely manner, as well as allowing other services to use the same medium.

10. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Kasal et al. (US 2003/0009542), in view of Medina et al. (US 6,975,581), in view of Sorenson et al. (US 7,336,680), in view of Oosterhout et al. (US 6,405,371), and further in view of Eto et al. (US 5,978,651).

Conisder **claim 10,** Kasal, Medina, and Sorenson teach a default server (Kasal - database server within the server farm 132 – Fig.1; Paragraph 0039, 0070), receives said television broadcast contents from said television broadcast content distributing servers to generate said menu of said television broadcast contents (Kasal - Paragraph 0039 teaches receiving and storing indexed multimedia content to generate custom screens/menus containing available selections), but do not explicitly teach time-divisionally receiving said television broadcast on a compressed-data basis, and time-expands the time-divisionally received television broadcast contents to generate said menu of television broadcast contents by time-divisionally generating said television broadcast contents.

In an analogous art, Oosterhout teaches receiving said television broadcast on a compressed-data basis, and demodulating/demultiplexing the received television broadcast contents to generate said menu of television broadcast contents by time-divisionally generating said television broadcast contents (Fig.2; Col 2: lines 46-67 teaches receiving digitally encoded {compressed-data basis} television broadcast contents and a receiver demodulating/demultiplexing the received signal which generates a mosaic of images like those shown in Fig.2. Col 4: lines 52-61 teaches real-time sub-images {reduced images}).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, and Sorenson to include

receiving said television broadcast on a compressed-data basis, and demodulating/demultiplexing the received television broadcast contents to generate said menu of television broadcast contents by time-divisionally generating said television broadcast contents, as taught by Oosterhout, for the advantage of efficiently utilizing broadcasting bandwidth while presenting to the user a more friendly visual representation of selectable viewing content, allowing them to quickly scan the content for ones they desire to view, without consuming a considerable amount of system resources.

Kasal, Medina, Sorenson, and Oosterhout do not explicitly teach time-divisionally receiving content, and time-expands the time-divisionally received contents.

In an analogous art Eto teaches, time-divisionally receiving content, and time-expands the time-divisionally received contents (Col 14: lines 55-67 teaches time-divisionally received content and time-expanding the content).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Kasal, Medina, Sorenson, and Oosterhout to include time-divisionally receiving content, and time-expands the time-divisionally received contents, as taught by Eto, for the advantage of allowing for sending and receiving greater amounts of data over one physical line, and allowing multiple stations to share the same transmission medium while using only a part of its channel capacity.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. LIN whose telephone number is (571)270-1446. The examiner can normally be reached on Mon-Fri, 9:00AM-6:00PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian T. Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Lin/
Examiner, Art Unit 2425

/Brian T. Pendleton/
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